

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the above-referenced application.

Listing of Claims:

Claims 1 and 2 (Cancelled).

3. (Currently amended) A measuring system for determining a property of ~~a fluid~~ an oil from a dielectric property of the ~~fluid~~ oil, comprising:

a first sensor for measuring an electric capacitance and a second sensor for measuring a temperature, wherein the first sensor is designed as a dielectric sensor which is immersed in the ~~fluid~~ oil and has a stray-field capacitor which functions as the measuring capacitor, and the second sensor is designed as a temperature sensor which is immersed in the ~~fluid~~ oil,

wherein the first and second sensors are each connected to an analyzer device which assigns a value of the property to be determined to a measured temperature value and a measured electric capacitance value, and

wherein the value of the electric capacitance measured by the dielectric sensor is compared in a comparator device of the analyzer device with a stored reference value assigned to the measured temperature value, and a signal is output as a function of whether the reference value is reached or exceeded.

4. (Currently amended) A measuring system for determining a property of a ~~fluid~~ an oil from a dielectric property of the ~~fluid~~ oil, comprising:

a first sensor for measuring an electric capacitance and a second sensor for measuring a temperature, wherein the first sensor is designed as a dielectric sensor which is immersed in the ~~fluid~~ oil and has a stray-field capacitor which functions as the measuring capacitor, and the second sensor is designed as a temperature sensor which is immersed in the ~~fluid~~ oil; and

a compensation device for correcting the measured value of the electric capacitance, taking into account a capacitance reference value measured on an auxiliary capacitor situated in proximity to the measuring capacitor.

5. (Cancelled)

6. (Currently amended) A sensor system for measuring a dielectric property of a ~~fluid~~ an oil, comprising:

a dielectric sensor which is immersed in the ~~fluid~~ oil and has a measuring capacitor designed as a stray-field capacitor, wherein the sensor has an auxiliary capacitor and on introduction of the sensor into the ~~fluid~~ oil, the auxiliary capacitor is not immersed in the ~~fluid~~ oil until the measuring capacitor is fully immersed in the ~~fluid~~ oil, wherein feeder lines of the measuring capacitor and the auxiliary capacitor are identical in design and are arranged in mutual symmetry.

7. (Currently amended) A sensor system for measuring a dielectric property of ~~a fluid~~ an oil, comprising:

a dielectric sensor which is immersed in the ~~fluid~~ oil and has a measuring capacitor designed as a stray-field capacitor, wherein the sensor has an auxiliary capacitor and on introduction of the sensor into the ~~fluid~~ oil, the auxiliary capacitor is not immersed in the ~~fluid~~ oil until the measuring capacitor is fully immersed in the ~~fluid~~ oil, wherein the auxiliary capacitor is composed of at least one spur line which ends upstream from the measuring capacitor and is designed and arranged like the feeder lines of the measuring capacitor.

8. (Previously presented) The sensor system as recited in Claim 6 wherein the measuring capacitor is formed by a plurality of flat printed conductors in the form of interdigital capacitor.

9. (Previously presented) The sensor system as recited in Claim 8, wherein the printed conductors are printed on an insulating substrate by thin-film or thick-film methods.

10. (Previously presented) The sensor system as recited in Claim 6 , further comprising:
a temperature sensor in the form of a Negative Temperature Coefficient (NTC) resistor, a Positive Temperature Coefficient (PTC) resistor or a temperature element.

11. (Previously presented) The sensor system as recited in Claim 10, wherein the temperature sensor is connected to the dielectric sensor to form a structural unit.

12. (Previously presented) The sensor system as recited in Claim 9, wherein feeder lines leading to a temperature sensor are applied to the insulating substrate in the form of printed conductors.
13. (Previously presented) The sensor system as recited in Claim 11, wherein feeder lines leading to the temperature sensor are applied to the insulating substrate in the form of printed conductors.
14. (Currently amended) A measuring system for determining a property of ~~a fluid~~ an oil from a dielectric property of the ~~fluid~~ oil, comprising:
- a first sensor for measuring an electric capacitance and a second sensor for measuring a temperature, wherein the first sensor is designed as a dielectric sensor which is immersed in the ~~fluid~~ oil and has a stray-field capacitor which functions as the measuring capacitor, and the second sensor is designed as a temperature sensor which is immersed in the ~~fluid~~ oil, and wherein the first and second sensors are each connected to an analyzer device which assigns a value of the property to be determined to a measured temperature value and a measured electric capacitance value, and wherein the value of the electric capacitance measured by the dielectric sensor is compared in a comparator device of the analyzer device with a stored reference value assigned to the measured temperature value, and a signal is output as a function of whether the reference value is reached or exceeded.

15. (Currently amended) A sensor system for measuring a dielectric property of a ~~fluid~~ oil, comprising:

a dielectric sensor which is immersed in the ~~fluid~~ oil and has a measuring capacitor designed as a stray-field capacitor, wherein the sensor has an auxiliary capacitor and on introduction of the sensor into the ~~fluid~~ oil, the auxiliary capacitor is not immersed in the ~~fluid~~ oil until the measuring capacitor is fully immersed in the ~~fluid~~ oil, and wherein feeder lines of the measuring capacitor and the auxiliary capacitor are identical in design and are arranged in mutual symmetry, wherein the auxiliary capacitor is composed of at least one spur line which ends upstream from the measuring capacitor and is designed and arranged like the feeder lines of the measuring capacitor, wherein the measuring capacitor is formed by a plurality of flat printed conductors in particular in the form of interdigital capacitor, and wherein the printed conductors are printed on an insulating substrate by thin-film or thick-film methods.

16. (Cancelled)

17. (Currently amended) The device of claim 19, wherein said first sensor includes a dielectric sensor and said first property is a capacitance of the ~~fluid~~ oil, and said second sensor includes a temperature sensor and said second property is a temperature of the ~~fluid~~ oil.

18. (Currently amended) A measuring device, comprising:

a first sensor that measures a first property of a ~~fluid~~ an oil and outputs a first measured value;

a second sensor that measures a second property of said ~~fluid~~ oil and outputs a second measured value; and

an analyzer device connected to said first and second sensors, wherein said analyzer device compares said first and second measured values with stored reference values and outputs at least one signal based on differentials between said measured values and said stored reference values,

wherein said first sensor is a capacitor having conductive feeder lines disposed on an insulating substrate.

19. (Currently amended) A measuring device, comprising:

a first sensor that measures a first property of a ~~fluid~~ an oil and outputs a first measured value;

a second sensor that measures a second property of said ~~fluid~~ oil and outputs a second measured value;

an analyzer device connected to said first and second sensors, wherein said analyzer device compares said first and second measured values with stored reference values and outputs at least one signal based on differentials between said measured values and said stored reference values; and

a compensation device that takes calibrating measurements of said first and second properties.

20. (Previously presented) The device of claim 19, wherein said compensation device is an auxiliary capacitor disposed in proximity to said first sensor.
21. (Previously presented) The device of claim 20, wherein said auxiliary capacitor includes at least one spur line ending upstream from feeder lines of a measuring capacitor of said first sensor and that is symmetrical with the feeder lines of said measuring capacitor.
22. (Previously presented) The device of claim 20, where said first sensor is structurally attached to said second sensor.

Claims 23-26 (Cancelled).